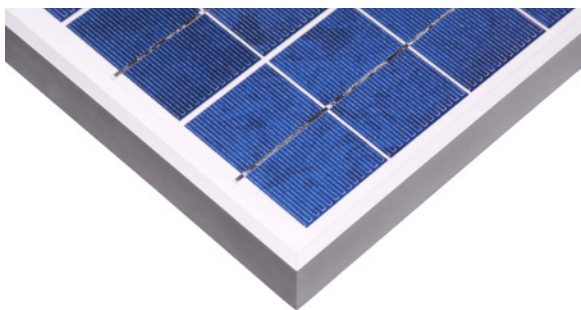
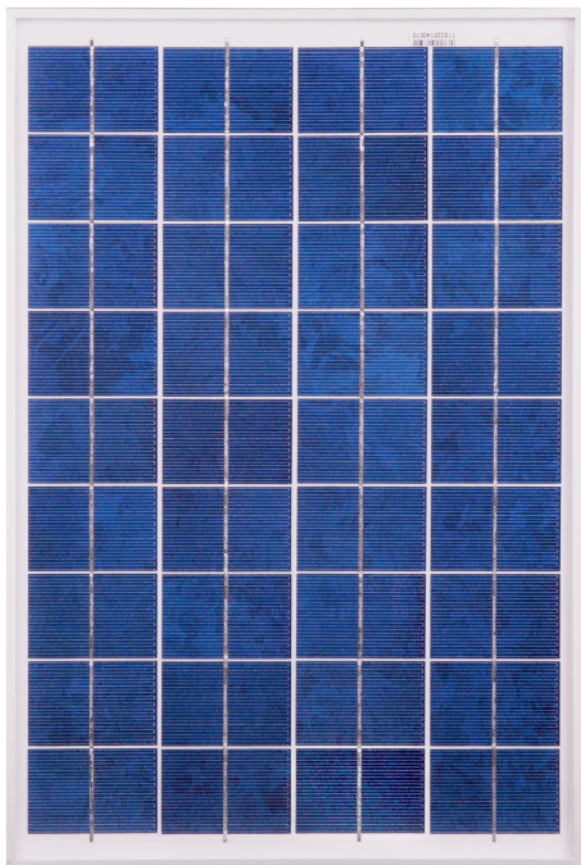


# JS 20 SERIES

YL020P-17b 1/7



## ABOUT GAIN SOLAR

Founded in 2007, Baoding Jiasheng Photovoltaic Technology Co., Ltd which markets its products under the brand "Gain Solar", is a wholly owned subsidiary of Yingli Solar, specializing in R&D, manufacturing and marketing of photovoltaic (PV) off-grid products and systems. What started as the in-house off-grid PV module production of Yingli Solar has developed over the years into a full-blown provider of off-grid PV modules, building-integrated PV modules, off-grid PV systems and solar application products. Founded on the Yingli Solar technology development, production, and distribution platform, Gain Solar has rapidly grown to set up branches in major provinces and cities of China and is now expanding its presence to the global level. Gain solar is dedicated to provide high quality off-grid PV products and systems to customers and received a series of certificate, including ISO9001, TUV, UL, CE, CQC and RoHS.

## PERFORMANCE

High efficiency, polycrystalline solar cells with high transmission and textured glass delivering a module efficiency of up to 15.0%, minimizing installation costs and maximizing the kWh output of your system per unit area.

## QUALITY AND RELIABILITY

- Industry leading in-house manufacturing of polysilicon, ingots, wafers, cells and modules ensures tight control of our material and production quality.
- Robust, corrosion resistant aluminum frame independently tested to withstand wind loads of 2.4 kPa and snow loads of 2.4 kPa ensuring a stable mechanical life for your modules.
- Module packaging optimized to protect product during transportation and minimize on-site waste.
- This type of module is commonly use for the small off-grid system.

# JS 20 SERIES

## ELECTRICAL PERFORMANCE

### Electrical parameters at Standard Test Conditions (STC)

Module name			JS 20
Module type			YL20P-17b 1/7
Power output	$P_{max}$	W	20
Power output tolerances	$\Delta P_{max}$	%	+/- 5
Module efficiency	$\eta_m$	%	11.50
Voltage at $P_{max}$	$V_{mpp}$	V	16.60
Current at $P_{max}$	$I_{mpp}$	A	1.20
Open-circuit voltage	$V_{oc}$	V	21.4
Short-circuit current	$I_{sc}$	A	1.31

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3.  
Average relative efficiency reduction of 5% at 200W/m<sup>2</sup> according to EN 60904-1.

## THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	46 +/- 2
Temperature coefficient of $P_{max}$	$\gamma$	%/°C	-0.45
Temperature coefficient of $V_{oc}$	$\beta_{Voc}$	%/°C	-0.37
Temperature coefficient of $I_{sc}$	$\alpha_{Isc}$	%/°C	0.06

## OPERATING CONDITIONS

Max. system voltage	50V <sub>DC</sub>
Max. series fuse rating	5A
Limiting reverse current	Don't apply external voltages larger than Voc of the module
Operating temperature range	-40 to 85°C
Max. static load, front (e.g., snow and wind)	2400Pa
Max. static load, back (e.g., wind)	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

## CONSTRUCTION MATERIALS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Cell (quantity / material / dimensions )	36 / multicrystalline silicon /70mm x 52mm
Encapsulant (material)	ethylene vinyl acetate (EVA)
Frame (material / color / anodization color)	anodized aluminum alloy / silver / clear

• Due to continuous innovation, research and product improvement, the specifications in this product information sheet are subject to change without prior notice. The specifications may deviate slightly and are not guaranteed.

• The data do not refer to a single module and they are not part of the offer, they only serve for comparison to different module types.

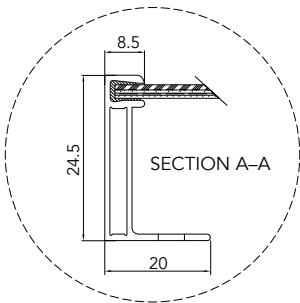
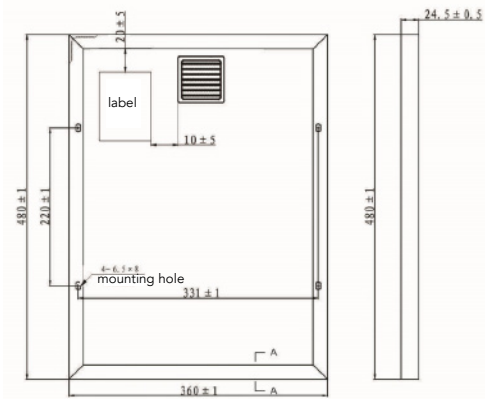
## GENERAL CHARACTERISTICS

Dimensions (L / W / H)	360mm / 480mm / 25mm
Weight	2.26kg

## PACKAGING SPECIFICATIONS

Number of modules per box	6
Packaging box dimensions (L / W / H)	390mm / 510mm / 190mm

Unit: mm



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